Stressors ranked highest by the women included nursing duties and responsibilities, witnessing the mutilation of young bodies, negating their emotions, and supply shortages.

Women Vietnam Veterans A Comparison of Studies

By Joan A. Furey, MA, RN

Study (NVVRS) (Kulka, 1990), de-

scriptions about the impact of war

the past 10 years have been marked by a proliferation of studies about the effects of war-related stress on military personnel. This stress, often described as post-traumatic stress disorder (PTSD), is reflected in the development of characteristic symptoms following a psychologically traumatic event generally outside the range of usual human experience. Cardinal symptoms of PTSD include re-experiencing the traumatic event; numbing of responsiveness or reduced involvement with the external world; and a variety autonomic, dysphoric, or cognitive symptoms.

Despite these criteria, research examining the stress experienced by nurses and other women who served in the war zone is scant. With the exceptions of the recently completed National Vietnam Veterans Readjustment

stress on women veterans are anecdotal or contained in the findings of small-scale studies. Regardless of sample size, method, or scope, all studies show that women exposed to war trauma have experienced deleterious psychosocial and emotional effects. This article synthesizes the findings pertaining to women veterans and focuses on the four major studies completed during the 6-year period from 1982 to 1988. **Overview of Studies**

The NVVRS, conducted by the Research Triangle Institute, North Carolina, included data gathered from 296 women veterans (Kulka, 1990). The study used diverse methodology to meet its objectives. In-depth, face to face, 3- to 5-hour interviews with Vietnam theater veterans. Vietnam era veterans, and nonveteran civilians were conducted by trained lay interviewers and covered such topics as marriage, family, education, occupation, military service, and Vietnam experience, as well as stressful and traumatic life experiences, substance abuse, psychiatric disorders, health problems, and health-care use.

A subset of these individuals were then selected to undergo a follow-up clinical interview with a mental health professional. The purpose of this semistructured diagnostic interview was to provide additional information on the

validity of the diagnosis made on the basis of the first interview. The last component of the study involved a follow-up interview with the spouse, significant other, or other co-resident partners. Prior to publication of the NVVRS, the three most widely quoted studies of war stress and women Vietnam veterans were authored by Schnair (1986), Paul (1985), and Norman (1988). These studies were largely descriptive.

Schnair's study, The Mental Health Status of Women Vietnam Veterans, surveyed 89 women who had served in Vietnam (Schnair, 1986). Each woman completed a written questionnaire composed of 223 questions that tapped their experiences and reactions during their service in Vietnam. Paul's Vietnam Veteran Nurse Project administered a 52-item questionnaire, designed to identify stressors and aftereffects experienced by nurses, to 137 nurse veterans (Paul, 1985). Norman's findings in PTSD and the Female Vietnam Veteran Nurse were based on indepth, structured interviews with 50 nurse veterans. Interviews were designed to determine the influence of clinical responsibilities, off-duty experiences, and social networks on the development of PTSD as measured by self-reports of intrusive thoughts and avoidant behaviors pertaining to the Vietnam experience. The majority of women in these studies were 25 years old or younger during their service in Vietnam, and had been in the military

Joan A. Furey, MA, RN, is Associate Director of Education, National Center for Post-Traumatic Stress Disorder, Clinical Laboratory and Educational Division, Palo Alto Veterans Affairs Medical Center-MPD, California.

This article was presented at the Third National Conference on Women and the Military, the William Joiner Center for the Study of War and Social Consequences, University of Massachusetts, March 9-11, 1990.

The author acknowledges the support and assistance of Patricia Byers, PhD, RN.

Address correspondence to Joan A. Furey, MA, RN, National Center for Post-Traumatic Stress Disorder, Clinical Laboratory and Education Division, Palo Alto VAMC-MPD #323D, Palo Alto, CA 94304.

less than 1 year prior to their Vietnam experience.

Summary of Findings

Schnair's study set the stage for subsequent work that would confirm and expand her findings. Half of the women in the study had sought professional help for a mental health problem since returning from Vietnam. Fifty percent of the women reported symptoms of PTSD, 20% of whom characterized the symptoms as significantly disruptive. Among the symptoms and the frequency of their occurrence, the following were reported:

- Having suicidal thoughts: one to nine times per month, 27.6%
- Feeling alienated from others: 15 to 30 times per month, 19.2%
- An inability to feel close: 15 to 30 times per month, 16.1%
- Feeling numb or empty inside: 15 to 30 times per month, 10.3%

Stressors ranked highest by the women included nursing duties and responsibilities, witnessing the mutilation of young bodies, negating their emotions, and supply shortages (Schnair, 1986).

The women in Paul's study were classified into two groups, the analogous group (Group A) and the variant group (Group V), based on the number of self-reported current adverse aftereffects (biopsychosocial problems) related to stressors experienced in Vietnam. Group V reported six or more aftereffects, whereas Group A reported six or less. Although the 15 aftereffects identified in this study were similar to PTSD symptoms, the authors carefully avoided inferring that Group V nurses were experiencing PTSD. The adverse aftereffects were recurring physiological problems, negative self-image, depression, anxiety, rage; anger, memory impairment, substance abuse; dreams/nightmares, disturbed sleep patterns, flashbacks, hyperalertness, avoidance of activities that arouse memories of Vietnam; and relationship problems (re-entry and current).

Findings revealed that 38.7% of the women were classified in Group V. Of those who had remained in the military, only 21.9% fell into this group, as opposed to 50% of those women

he consistent exposure to severe combat casualties and death and dying take a significant emotional toll.

who returned to civilian life. The percentage of currently married women in Group V was lower than Group A, and Group V nurses reported a higher incidence of daily drinking, drinking alone, and binge drinking (Paul, 1985).

The percentage of nurses who had sought psychological counseling once they returned from Vietnam (43.8%) was only slightly less than in Schnair's study (50%). It is interesting to note that Group A nurses sought help more frequently for problems related to marital discord and interpersonal relationships, whereas Group V nurses sought help for depression, alcohol, drugs, marital discord, and work-related problems.

Norman's study used scores on 14 questions about PTSD intrusive recollections and avoidant behaviors to divide subjects into three levels of PTSD symptomatology (high, medium, low) over three points in time (first year home, subsequent years, current time). Twenty-two percent of the women in this study were still experiencing high levels of intrusive thoughts, and 14% were engaging in avoidance behaviors at the time of the study. Moderate levels of intrusion were reported by 54%, and 40% reported medium levels of avoidant behavior. Findings also indicated that intrusion and avoidant behaviors were inversely correlated with age, professional experience, and social support on return from Vietnam, suggesting that a more mature individual with a strong social support system is less likely to develop significant PTSD symptomatology (Norman, 1988).

The NVVRS, the most comprehensive study to date, clearly substantiates the findings of the earlier, smaller scale studies of women theater veterans. Theater veterans are those military personnel serving in Vietnam. High War Zone Stress (HWZS) is a prominent theme in the NVVRS analysis of the readjustment problems of women veterans. The seven indices used to assess war zone stress for women in this study were exposure to wounded and dead; exposure to enemy fire; direct combat involvement; exposure to abusive violence; deprivation; being a prisoner of war; and having received a combat medal.

Results show that women theater veterans currently experience more readjustment problems than Vietnam era women of similar age and occupation. In addition, more than one fourth (26.9%) have had full-blown PTSD at some point in their lives, and 8.5% can currently be diagnosed with the disorder; 7.8% currently suffer from some PTSD symptomatology; and 21.2% of all women theater veterans reported that their lives have been seriously affected by these symptoms, even though the reported extent of their problem did not meet the criteria required for diagnosis. These overall findings show that nearly half (48.1%), or approximately 3,500, of women theater veterans have experienced clinically significant war zone stress reaction symptoms.

NVVRS results also indicate that HWZS women have significantly higher rates for lifetime depression and dysthymia, nonspecific distress (demoralization); co-occurrence of PTSD and other psychiatric diagnoses; and seven times the rate of current PTSD than those with low or moderate war zone exposure. Higher rates of PTSD were also found in those women who served in the areas of I Corp and II Corp, two of the four geographical areas of Vietnam. Whether this finding corresponds to greater combat activity, the location of more hospitals in these regions, or other factors requires further analysis. An additional finding is that women theater veterans exposed to HWZS have attained a higher educational status than other military personnel that did not serve in Vietnam, but have a higher level of occupational instability. This finding suggests that the educational attainment postmilitary of these women cannot be explained by access to GI bill benefits alone and warrants further investigation.

Both the NVVRS and Norman report that women veterans born during the 1940s have significantly higher rates of PTSD than women born prior to 1940, and those who have served on active duty for more than 20 years have a particularly low rate of the disorder (Kulka, 1990; Norman, 1988). The percentage of currently married

women ranged from a low of 44% in Norman's study to a high of 50% in the NVVRS. Sixty percent of the women in Norman's study and 50% of the NVVRS women were childless. Paul's findings of a lower percentage of married women in Group V nurses (six or more symptoms) and Norman's findings on marital status are consistent with the NVVRS positive correlation between HWZS, divorce, and PTSD.

With the exception of the NVVRS, none of the other studies conclusively established the diagnosis of PTSD among study participants. However, all four studies clearly demonstrate that women veterans exposed to war zone stress manifest clinically significant symptoms that impair life functioning. As shown in the NVVRS, quality of life is adversely affected even among war zone women veterans who exhibit partial PTSD rather than the full clinical syndrome.

Conclusions

The studies summarized in this article present strong evidence that many women exposed to war stress have suffered mental health problems related to their experience. A substantial number continue to have serious emotional, psychosocial, and other readjustment

problems that affect their current level of functioning and life satisfaction. The NVVRS revealed that 73% with partial PTSD have never seen a mental health professional. The consistent exposure to severe combat casualties, death and dying, workload extremes, personal deprivation, loss, and danger all take a significant emotional toll. These studies underscore the need for affected women to explore their war experiences and associated feelings with mental health professionals, as well as the need for those same professionals to develop an awareness and understanding of the impact of specific war-related stress on women.

References

Kulka, R.A., Schlenger, W.E., Fairbank, J.A., Hough, R., Jordan, B.K., Marmar, C.R., et al. The National Vietnam Veterans Readjustment Study: Contractural report of findings. In Trauma and the Vietnam war generation. New York: Brunner & Mazel, 1990.

Norman, E.M. Post-traumatic stress disorder in military nurses who served in Vietnam during the war years: 1965-1973. Milit Med 1988; 153:238-242.

Paul, E.A. Wounded healers: A summary of the Vietnam nurse veteran project. Milit Med 1985; 150:571-576.

Schnair, J.A. Women veterans and their mental health adjustment. In C. Figley (Ed.), *Trauma and its wake*, vol. II. New York: Brunner & Mazel, 1986.

Vietnam Veterans KEY POINTS

Women Vietnam Veterans: A Comparison of Studies. Furey, J.A. *Journal of Psychosocial Nursing and Mental Health Services* 1991; 29(3):11-13.

There is strong evidence that many women exposed to war stress have suffered mental health problems related to their experience, and a substantial number continue to have serious emotional, psychosocial, and other readjustment problems that affect their current level of functioning and life satisfaction.

The consistent exposure to severe combat casualties, death and dying, workload extremes, personal deprivation, loss, and danger all take a significant emotional toll.

These studies underscore the need for affected women to explore their war experiences and associated feelings with mental health professionals, as well as the need for those professionals to develop an awareness and understanding of the impact of specific war-related stress on women.